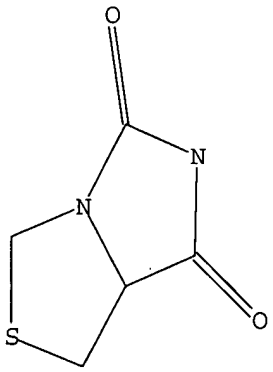
=>
Uploading C:\Program Files\Stnexp\Queries\10758223.str

L12 STRUCTURE UPLOADED

=> d
L12 HAS NO ANSWERS
L12 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l12 full
FULL SEARCH INITIATED 08:23:58 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 427 TO ITERATE

100.0% PROCESSED 427 ITERATIONS 257 ANSWERS
SEARCH TIME: 00.00.01

L13 257 SEA SSS FUL L12

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     (FILE 'HOME' ENTERED AT 08:19:41 ON 02 OCT 2006)

     FILE 'REGISTRY' ENTERED AT 08:19:48 ON 02 OCT 2006
L1            35 S HYDANTOIN AND THIAZOLIDIN?
L2             0 S L1 AND BICYCLIC

     FILE 'CAPLUS' ENTERED AT 08:20:17 ON 02 OCT 2006
L3           438 S L1
L4           102 S L3 AND SYNTHESIS
L5             0 S L4 AND ALDEHYDE AND ?CYANA?
L6             1 S L4 AND ALDEHYDE AND ?CYAN?
L7           110 S L3 AND ?ALDEHYD?
L8            28 S L7 AND ?CYAN?
L9             0 S L8 AND SIEVE?
L10            0 S L8 AND POROUS?
L11            1 S L8 AND CRYSTAL?

=>
```

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     (FILE 'HOME' ENTERED AT 08:19:41 ON 02 OCT 2006)

     FILE 'REGISTRY' ENTERED AT 08:19:48 ON 02 OCT 2006
L1            35 S HYDANTOIN AND THIAZOLIDIN?
L2             0 S L1 AND BICYCLIC

     FILE 'CAPLUS' ENTERED AT 08:20:17 ON 02 OCT 2006
L3           438 S L1
L4           102 S L3 AND SYNTHESIS
L5             0 S L4 AND ALDEHYDE AND ?CYANA?
L6             1 S L4 AND ALDEHYDE AND ?CYAN?
L7           110 S L3 AND ?ALDEHYD?
L8            28 S L7 AND ?CYAN?
L9             0 S L8 AND SIEVE?
L10            0 S L8 AND POROUS?
L11            1 S L8 AND CRYSTAL?

     FILE 'REGISTRY' ENTERED AT 08:23:43 ON 02 OCT 2006
L12              STRUCTURE UPLOADED
L13          257 S L12 FULL

     FILE 'CAPLUS' ENTERED AT 08:24:08 ON 02 OCT 2006
L14           14 S L13 AND ?ALDEHYD?
L15           10 S L14 AND ?CYAN?

=>
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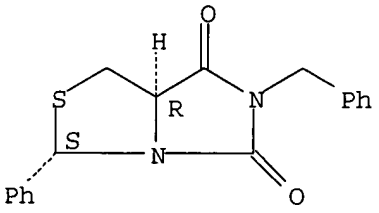
L15 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:272470 CAPLUS
DOCUMENT NUMBER: 144:108119
TITLE: Improvement in the synthetic method of a precursor of d-biotin
AUTHOR(S): Li, Kai-long; Li, Yun-zheng; Zhang, Qing-shan
CORPORATE SOURCE: School of Chemical Engineering and Environment, Beijing Institute of Technology, Beijing, 100081, Peop. Rep. China
SOURCE: Jingxi Huagong (2005), 22(2), 133-134, 148
CODEN: JIHUFJ; ISSN: 1003-5214
PUBLISHER: Jingxi Huagong Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
OTHER SOURCE(S): CASREACT 144:108119

AB A stable Zn-Cu/TiCl3 system is applied, after being compared with other Mcmurry catalyst systems, to prepare (6aR)-1,3-dibenzyl-4-(4-methoxycarbonylbutyl)-dihydro-thieno[3,4-d]imidazole-2-one (I) as a precursor to d-biotin. By treatment of (4R)-carboxy-(2S)-phenylthiazolidine with isocyanic acid benzyl ester in AcOH/Ac2O system, the reaction time is shortened from 17 h to 3 h, and the yield of (7aR)-3-phenyl-1H,3H-imidazo[1,5-c]thiazole-(6H,7aH)5,7-dione (II) is raised from 75% to 93%. Thus, from L-cysteine hydrochloride by treatment with benzaldehyde and isocyanic acid benzyl ester sequentially, II is formed and converted into N,N'-dibenzyl-mercaptomethylhydatoin (III) via reduction with zinc at 90 °C. The carboxybutyl chain of biotin is introduced via esterification of III with monomethyl adipate chloride to form a thio ester. Reaction of the latter with Zn-Cu/TiCl3 system gives readily I, and the requisite biotin skeletal structure is established. Overall yield of the five steps reaches 56%.

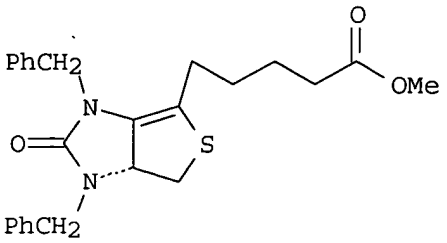
IT 112878-92-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of thienoimidazolone derivative as intermediate of d-biotin)
RN 112878-92-9 CAPLUS
CN 1H,3H-Imidazo[1,5-c]thiazole-5,7(6H,7aH)-dione, 3-phenyl-6-(phenylmethyl)-, (3S,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L15 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:165531 CAPLUS
DOCUMENT NUMBER: 141:174004
TITLE: Intermediate of biotin: synthesis of (6aR)-1,3-dibenzyl-4-(4-methoxycarbonylbutyl)-dihydro-thieno[3,4-d] imidazole-2-one
AUTHOR(S): Zhao, Jia; Li, Yun-zheng; Zhang, Qing-shan
CORPORATE SOURCE: School of Chemical Engineering and Environmental, Beijing Institute of Technology, Beijing, 100081, Peop. Rep. China
SOURCE: Jingxi Huagong (2004), 21(1), 30-32
CODEN: JIHUFJ; ISSN: 1003-5214

PUBLISHER: Jingxi Huagong Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
OTHER SOURCE(S): CASREACT 141:174004
GI



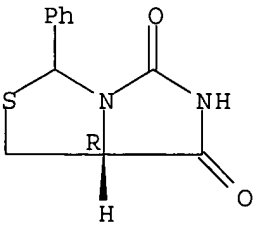
I

AB Using L-cysteine hydrochloride as starting material, an intermediate of biotin, (6aR)-1,3-dibenzyl-4-(4-methoxycarbonylbutyl)-dihydro-thieno[3,4-d]imidazole-2-one (I), was synthesized with overall yield 37%. (7AR)-3-Phenyl-1H, 3H-imidazo [1,5-c] thiazole-(6H,7aH) 5,7-dione, formed by treatment of L-cysteine hydrochloride with benzaldehyde and sodium cyanate sequentially, is converted into N,N'-dibenzyl-mercaptomethylhydration via a two-step sequence involving benzyl protection with benzyl bromide and reductive ring-opening with zinc. The carboxybutyl chain of biotin was introduced via esterification with mono Me adipate chloride, further reacted with zinc and titanium tetrachloride, formed the desired biotin stereochem. skeletal structure.

IT 318267-41-3P 736157-98-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of biotin intermediate)

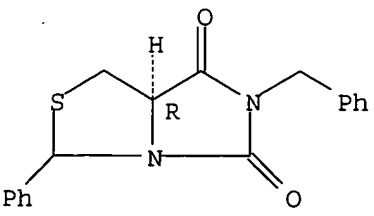
RN 318267-41-3 CAPLUS
CN 1H,3H-Imidazo[1,5-c]thiazole-5,7(6H,7aH)-dione, 3-phenyl-, (7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 736157-98-5 CAPLUS
CN 1H,3H-Imidazo[1,5-c]thiazole-5,7(6H,7aH)-dione, 3-phenyl-6-(phenylmethyl)-, (7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

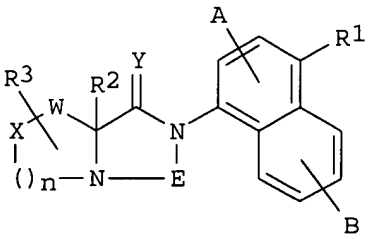


L15 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:117794 CAPLUS
DOCUMENT NUMBER: 138:153537
TITLE: Preparation of imidazole-containing heterobicyclic modulators of androgen receptor function
INVENTOR(S): Sun, Chongqing; Robl, Jeffrey A.; Salvati, Mark E.; Wang, Tammy; Hamann, Lawrence; Augeri, David
PATENT ASSIGNEE(S): Bristol-Myers Squibb Company, USA
SOURCE: PCT Int. Appl., 99 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003011824	A1	20030213	WO 2002-US24185	20020731
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003055094	A1	20030320	US 2002-209461	20020731
US 6670386	B2	20031230		
EP 1414795	A1	20040506	EP 2002-756813	20020731
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
US 2004092559	A1	20040513	US 2003-685020	20031014
US 6992102	B2	20060131		

PRIORITY APPLN. INFO.:	US 2001-309059P	P	20010731
	US 2002-209461	A3	20020731
	WO 2002-US24185	W	20020731

OTHER SOURCE(S): MARPAT 138:153537
GI



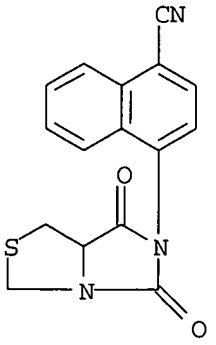
I

AB The invention provides imidazole-containing heterobicyclic compds. (shown as I, including all prodrug esters, pharmaceutically acceptable salts and stereoisomers thereof; variables defined below; e.g. tetrahydro-2-(4-nitro-1-naphthalenyl)imidazo[1,5-a]pyridine-1,3(2H,5H)-dione), methods of using such compds. for the treatment of nuclear hormone receptor-associated conditions, such as age related diseases, for example sarcopenia, and pharmaceutical compns. containing such compds. Pharmacol. assay procedures

are described but results for I are not reported. For I: R1 = H, cyano, nitro, halo, heterocyclo, OR4, CO2R5, CONHR5, COR5, S(O)mR5, SO2NR5R5', NHCOR5 and NHSO2R5; R2 = H, alkyl or substituted alkyl, (un)substituted alkenyl, (un)substituted arylalkyl, CO2R5, CONR5R5' and CH2OR5; R3 = H, (un)substituted alkyl, (un)substituted alkenyl, (un)substituted alkynyl, (un)substituted cycloalkyl, (un)substituted arylalkyl, (un)substituted heterocycloalkyl, (un)substituted aryl, (un)substituted heteroaryl, halo, cyano, NHCOR5, NHCO2R5, NHCONR5R5', NHSO2R5 and OR4. R4 = H, (un)substituted alkyl, CHF2, CF3 and COR5; R5 and R5' = H, (un)substituted alkyl, (un)substituted alkenyl, (un)substituted alkynyl, (un)substituted cycloalkyl, (un)substituted heterocycloalkyl, (un)substituted arylalkyl, (un)substituted aryl, (un)substituted heteroaryl and cyano; W = (CR6R6')m, CHOH(CR6R6')m, CO(CR6R6')m and C:NOR4(CR6R6')m. R6 and R6' = H, (un)substituted alkyl, (un)substituted alkenyl, (un)substituted alkynyl, (un)substituted cycloalkyl, (un)substituted arylalkyl, (un)substituted heterocycloalkyl, (un)substituted aryl, (un)substituted heteroaryl, halo, cyano, NHCOR5, NHCO2R5, NHCONR5R5', NHSO2R5 and OR4; X = methylene, O, S(O)m, NCOR5, NCO2R5, NCONHR5R5', NSO2NR5R5'; Y = O, S and H2; E = C:Z, CHR5, SO2, P(O)R5 and P(O)OR5; Z = O, S, NH and NR5; A and B = H, halo, cyano, nitro, (un)substituted alkyl and OR4; m = 0-2; and n = 1-2;. Although the methods of preparation are not claimed, 42 example prepns. are included.

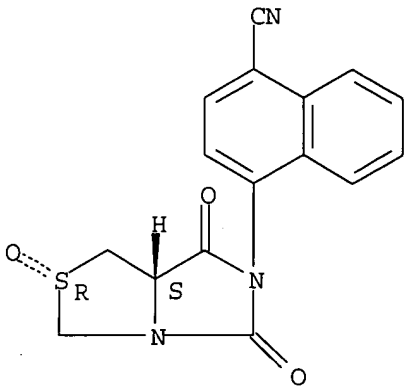
IT 496841-21-5P, 4-(5,7-Dioxodihydroimidazo[1,5-c]thiazol-6-yl)naphthalene-1-carbonitrile 496841-22-6P 496841-23-7P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of imidazole-containing heterobicyclic modulators
of androgen receptor function)

RN 496841-21-5 CAPLUS
CN 1-Naphthalenecarbonitrile, 4-(dihydro-5,7-dioxo-1H,3H-imidazo[1,5-c]thiazol-6(5H)-yl)- (9CI) (CA INDEX NAME)



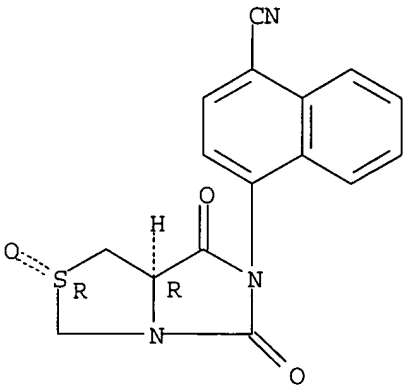
RN 496841-22-6 CAPLUS
CN 1-Naphthalenecarbonitrile, 4-[(2R,7aS)-dihydro-2-oxido-5,7-dioxo-1H,3H-imidazo[1,5-c]thiazol-6(5H)-yl]-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 496841-23-7 CAPLUS
CN 1-Naphthalenecarbonitrile, 4-[(2R,7aR)-dihydro-2-oxido-5,7-dioxo-1H,3H-imidazo[1,5-c]thiazol-6(5H)-yl]-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:17853 CAPLUS
DOCUMENT NUMBER: 134:100868
TITLE: Method for preparation of tetrahydrothienoimidazoles from cysteine
INVENTOR(S): Takahashi, Masami; Sakurai, Osamu; Kokubo, Shigeru; Omizu, Hiroshi
PATENT ASSIGNEE(S): Tanabe Seiyaku Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001002679	A2	20010109	JP 1999-174605	19990621
PRIORITY APPLN. INFO.:			JP 1999-174605	19990621

OTHER SOURCE(S): CASREACT 134:100868; MARPAT 134:100868
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

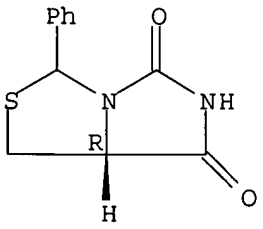
AB The title compds. [I; R1, R2 = H, imino-protecting group; X = O, S; A = cyano, (un)protected CO2H] are prepared by cyclization of 5-(alkanoylthiomethyl)-imidazolidine-2,4-dione derivs. [II; R1, R2, A = same as above; X, Y, Z = O, S] in the presence of titanium. The tetrahydrothienoimidazoles I or salts thereof are reduced, if necessary followed by hydrolysis to give hexahydrothienoimidazoles (III; X = same as above), e.g. biotin. This process does not require optical resolution and efficiently gives from L-cysteine, hexahydrothienoimidazoles III such as biotin, which are useful as feed additive or drug, and their intermediates I without using thiolactones. Thus, a suspension of 3.92 g Zn in 35 mL THF was refluxed for 0.5 h under N, cooled to -50°, treated dropwise with 2.2. mL TiCl4, and refluxed for 5 h, followed by adding dropwise a solution of 2.34 g (R)-[[5-(methoxycarbonyl)pentanoylthio]methyl]-1,3-dibenzyl-imidazolidine-2,4-dione in 15 mL THF under reflux, and the resulting mixture was refluxed for 6 h, ice-cooled, treated dropwise with 5 mL ethylenediamine, stirred 10 min, and filtered to give, after workup and silica gel chromatog., 1.79 g (R)-I (R1 = R2 = CH2Ph, X = O, A = CO2Me). The latter compound (60 mg), 0.2 mL pyridine, and 20 mg 20% Pd(OH)2/C were added to 25 mL EtOAc and stirred under hydrogen pressure 50 atm at 90° for 5 h to give 29 mg Me 5-[(2S,2aS,5aR)-3,5-dibenzyl-2,2a,4,5,5a,6-hexahydrothieno[3,4-d]imidazol-2-yl]pentanoate which (1.0 g) was dissolved in 3.0 g MeSO3H and stirred at 130° for 6 h to give 0.58 g biotin.

IT 318267-41-3P 318267-46-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of hexahydrothienoimidazoles and tetrahydrothienoimidazoles by cyclization of (alkanoylthiomethyl)imidazolidinedione derivs. in presence of titanium followed by reduction and optional hydrolysis)

RN 318267-41-3 CAPLUS

CN 1H,3H-Imidazo[1,5-c]thiazole-5,7(6H,7aH)-dione, 3-phenyl-, (7aR)- (9CI) (CA INDEX NAME)

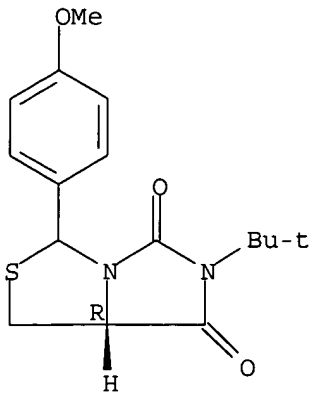
Absolute stereochemistry.



RN 318267-46-8 CAPLUS

CN 1H,3H-Imidazo[1,5-c]thiazole-5,7(6H,7aH)-dione, 6-(1,1-dimethylethyl)-3-(4-methoxyphenyl)-, (7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

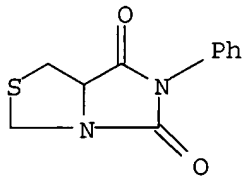


L15 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:655715 CAPLUS
DOCUMENT NUMBER: 121:255715
TITLE: Immunomodulatory agents: dioxothiadiazabicyclo[3.3.0]octanes and their 2-spiro derivatives
AUTHOR(S): Refouvelet, Bernard; Harraga, Said; Nicod, Laurence; Robert, Jean Francois; Seilles, Estelle; Couquelet, Jacques; Tronche, Pierre
CORPORATE SOURCE: Equipe Chim. Therapeutique, Fac. Med. Pharmacie, Besancon, 25030, Fr.
SOURCE: Chemical & Pharmaceutical Bulletin (1994), 42(5), 1076-83
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English

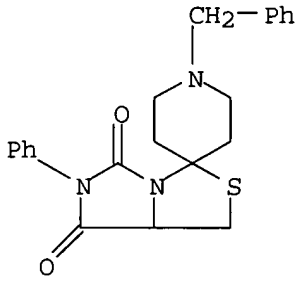
AB A series of 6,8-dioxo-3-thia-1,7-diazabicyclo[3.3.0]octanes and a series of 6,8-dioxo-3-thia-1,7-diazabicyclo[3.3.0]octane 2-spiro derivs. were synthesized from L-(-)-R-cysteine Et ester in two steps. The synthetic route involved condensation of the amino acid with an appropriate aldehyde or ketone, then a further condensation of the resultant Et thiazolidine-4-carboxylate with an isocyanate or an isothiocyanate. The proliferative response to human lymphocyte mitogen (phytohemagglutinin) was used as a primary screening assay for most of the thiadiazabicyclic compds. in comparison with levamisole. Furthermore, the most active compds. were tested for ability to release soluble receptors (sRIL-2) after mitogenic stimulation of T cells and for ability to activate macrophage oxidative metabolism measured by chemiluminescence. Most compds. were active in all three tests and some showed dose-dependent activity.

IT 51977-23-2P 55244-46-7P 105126-42-9P
105126-44-1P 120222-14-2P 158745-67-6P
158745-68-7P 158745-69-8P 158745-70-1P
158745-77-8P 158745-78-9P 158745-79-0P
158745-80-3P 158745-83-6P 158745-84-7P
158745-85-8P 158745-86-9P 158745-88-1P
158745-89-2P 158745-90-5P 158745-92-7P
158745-93-8P 158745-94-9P 158745-95-0P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of dioxothiadiazabicyclo[3.3.0]octanes and their 2-spiro derivs. as immunomodulatory agents)

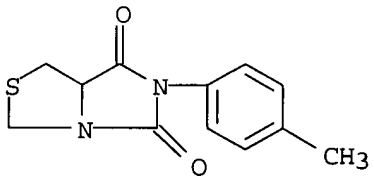
RN 51977-23-2 CAPLUS
CN 1H,3H-Imidazo[1,5-c]thiazole-5,7(6H,7aH)-dione, 6-phenyl- (9CI) (CA INDEX NAME)



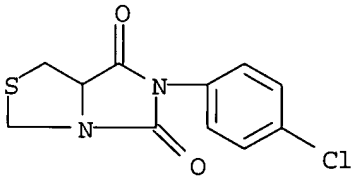
RN 55244-46-7 CAPLUS
CN Spiro[1H,3H-imidazo[1,5-c]thiazole-3,4'-piperidine]-5,7(6H,7aH)-dione, 6-phenyl-1'-(phenylmethyl)- (9CI) (CA INDEX NAME)



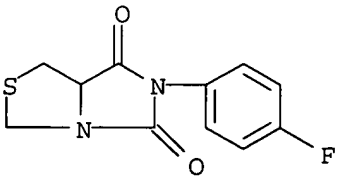
RN 105126-42-9 CAPLUS
CN 1H,3H-Imidazo[1,5-c]thiazole-5,7(6H,7aH)-dione, 6-(4-methylphenyl)- (9CI) (CA INDEX NAME)



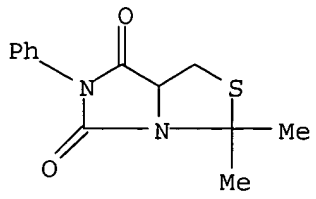
RN 105126-44-1 CAPLUS
CN 1H,3H-Imidazo[1,5-c]thiazole-5,7(6H,7aH)-dione, 6-(4-chlorophenyl)- (9CI) (CA INDEX NAME)



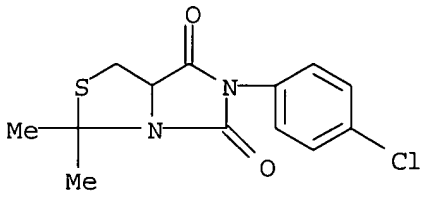
RN 120222-14-2 CAPLUS
CN 1H,3H-Imidazo[1,5-c]thiazole-5,7(6H,7aH)-dione, 6-(4-fluorophenyl)- (9CI) (CA INDEX NAME)



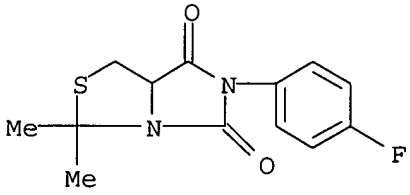
RN 158745-67-6 CAPLUS
CN 1H,3H-Imidazo[1,5-c]thiazole-5,7(6H,7aH)-dione, 3,3-dimethyl-6-phenyl- (9CI) (CA INDEX NAME)



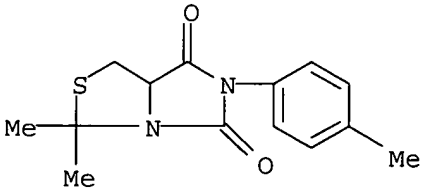
RN 158745-68-7 CAPLUS
CN 1H,3H-Imidazo[1,5-c]thiazole-5,7(6H,7aH)-dione, 6-(4-chlorophenyl)-3,3-dimethyl- (9CI) (CA INDEX NAME)



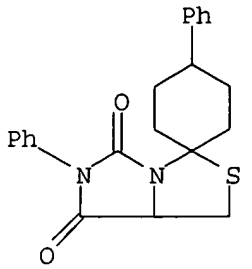
RN 158745-69-8 CAPLUS
CN 1H,3H-Imidazo[1,5-c]thiazole-5,7(6H,7aH)-dione, 6-(4-fluorophenyl)-3,3-dimethyl- (9CI) (CA INDEX NAME)



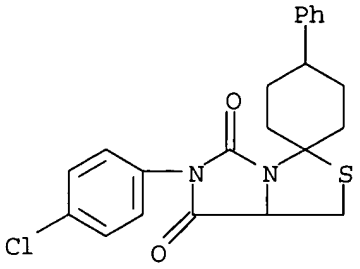
RN 158745-70-1 CAPLUS
CN 1H,3H-Imidazo[1,5-c]thiazole-5,7(6H,7aH)-dione, 3,3-dimethyl-6-(4-methylphenyl)- (9CI) (CA INDEX NAME)



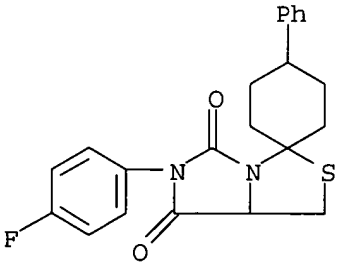
RN 158745-77-8 CAPLUS
CN Spiro[cyclohexane-1,3'-[1H,3H]imidazo[1,5-c]thiazole]-5',7'(6'H,7'aH)-dione, 4,6'-diphenyl- (9CI) (CA INDEX NAME)



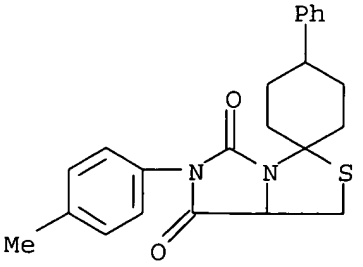
RN 158745-78-9 CAPLUS
CN Spiro[cyclohexane-1,3'-[1H,3H]imidazo[1,5-c]thiazole]-5',7'(6'H,7'aH)-dione, 6'-(4-chlorophenyl)-4-phenyl- (9CI) (CA INDEX NAME)



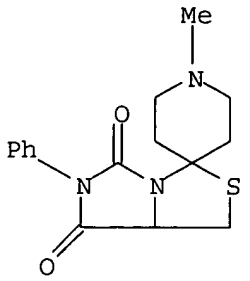
RN 158745-79-0 CAPLUS
CN Spiro[cyclohexane-1,3'-[1H,3H]imidazo[1,5-c]thiazole]-5',7'(6'H,7'aH)-dione, 6'-(4-fluorophenyl)-4-phenyl- (9CI) (CA INDEX NAME)



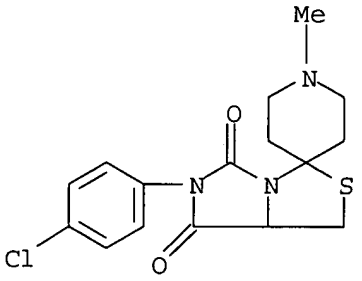
RN 158745-80-3 CAPLUS
CN Spiro[cyclohexane-1,3'-[1H,3H]imidazo[1,5-c]thiazole]-5',7'(6'H,7'aH)-dione, 6'-(4-methylphenyl)-4-phenyl- (9CI) (CA INDEX NAME)



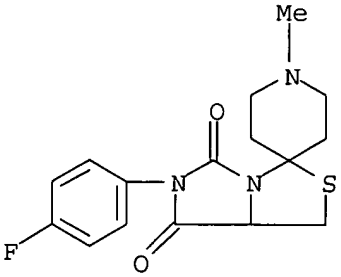
RN 158745-83-6 CAPLUS
CN Spiro[1H,3H-imidazo[1,5-c]thiazole-3,4'-piperidine]-5,7(6H,7aH)-dione, 1'-methyl-6-phenyl- (9CI) (CA INDEX NAME)



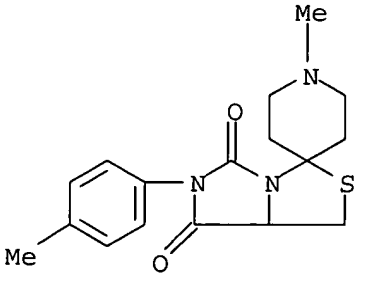
RN 158745-84-7 CAPLUS
CN Spiro[1H,3H-imidazo[1,5-c]thiazole-3,4'-piperidine]-5,7(6H,7aH)-dione, 6-(4-chlorophenyl)-1'-methyl- (9CI) (CA INDEX NAME)



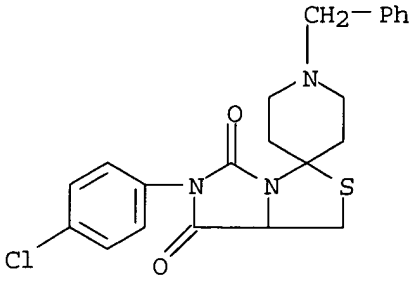
RN 158745-85-8 CAPLUS
CN Spiro[1H,3H-imidazo[1,5-c]thiazole-3,4'-piperidine]-5,7(6H,7aH)-dione, 6-(4-fluorophenyl)-1'-methyl- (9CI) (CA INDEX NAME)



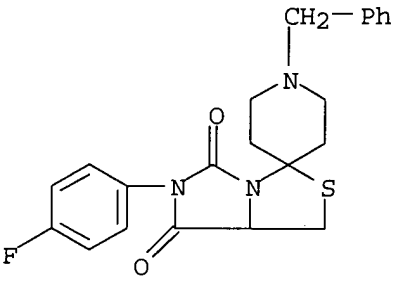
RN 158745-86-9 CAPLUS
CN Spiro[1H,3H-imidazo[1,5-c]thiazole-3,4'-piperidine]-5,7(6H,7aH)-dione, 1'-methyl-6-(4-methylphenyl)- (9CI) (CA INDEX NAME)



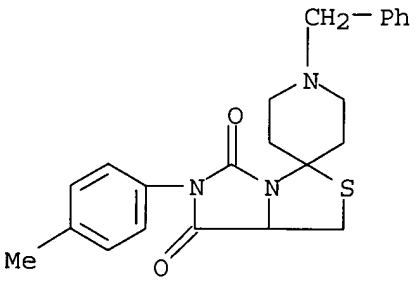
RN 158745-88-1 CAPLUS
CN Spiro[1H,3H-imidazo[1,5-c]thiazole-3,4'-piperidine]-5,7(6H,7aH)-dione, 6-(4-chlorophenyl)-1'-(phenylmethyl)- (9CI) (CA INDEX NAME)



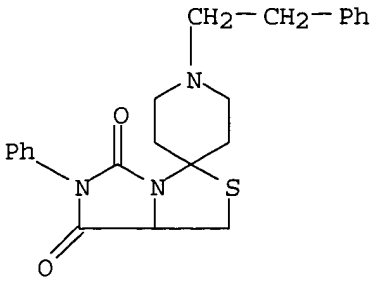
RN 158745-89-2 CAPLUS
CN Spiro[1H,3H-imidazo[1,5-c]thiazole-3,4'-piperidine]-5,7(6H,7aH)-dione, 6-(4-fluorophenyl)-1'-(phenylmethyl)- (9CI) (CA INDEX NAME)



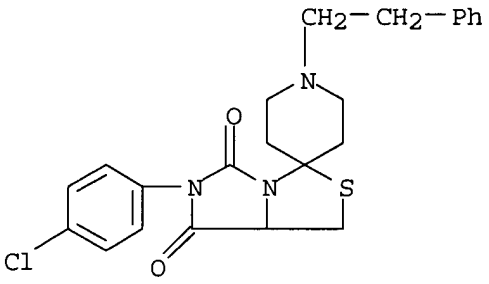
RN 158745-90-5 CAPLUS
CN Spiro[1H,3H-imidazo[1,5-c]thiazole-3,4'-piperidine]-5,7(6H,7aH)-dione, 6-(4-methylphenyl)-1'-(phenylmethyl)- (9CI) (CA INDEX NAME)



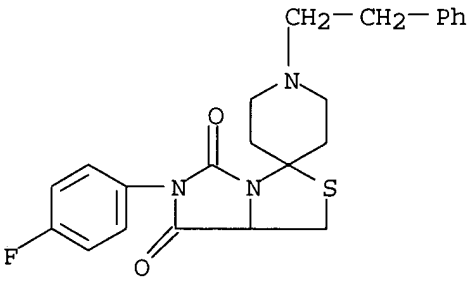
RN 158745-92-7 CAPLUS
CN Spiro[1H,3H-imidazo[1,5-c]thiazole-3,4'-piperidine]-5,7(6H,7aH)-dione, 6-phenyl-1'-(2-phenylethyl)- (9CI) (CA INDEX NAME)



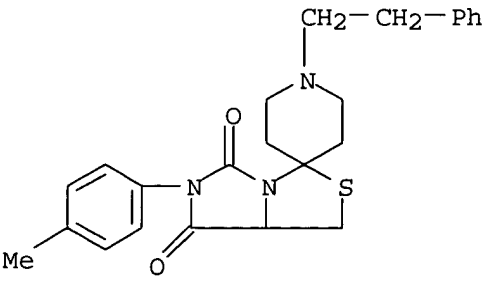
RN 158745-93-8 CAPLUS
CN Spiro[1H,3H-imidazo[1,5-c]thiazole-3,4'-piperidine]-5,7(6H,7aH)-dione, 6-(4-chlorophenyl)-1'-(2-phenylethyl)- (9CI) (CA INDEX NAME)



RN 158745-94-9 CAPLUS
CN Spiro[1H,3H-imidazo[1,5-c]thiazole-3,4'-piperidine]-5,7(6H,7aH)-dione, 6-(4-fluorophenyl)-1'-(2-phenylethyl)- (9CI) (CA INDEX NAME)

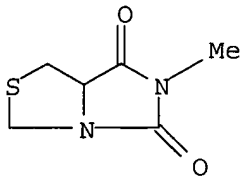


RN 158745-95-0 CAPLUS
CN Spiro[1H,3H-imidazo[1,5-c]thiazole-3,4'-piperidine]-5,7(6H,7aH)-dione, 6-(4-methylphenyl)-1'-(2-phenylethyl)- (9CI) (CA INDEX NAME)

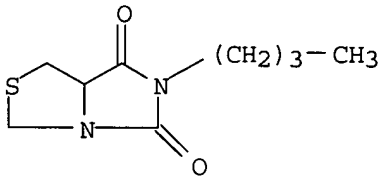


IT 51977-25-4P 105126-39-4P 105126-40-7P
105126-41-8P 105126-43-0P 155266-93-6P
158745-72-3P 158745-73-4P 158745-74-5P
158745-75-6P 158745-76-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of dioxothiadiazabicyclo[3.3.0]octanes and their 2-spiro derivs. as immunomodulatory agents)

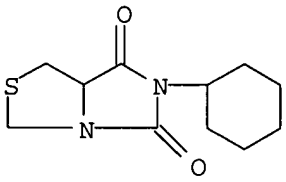
RN 51977-25-4 CAPLUS
CN 1H,3H-Imidazo[1,5-c]thiazole-5,7(6H,7aH)-dione, 6-methyl- (9CI) (CA INDEX NAME)



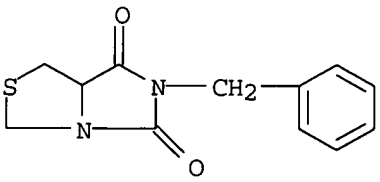
RN 105126-39-4 CAPLUS
CN 1H,3H-Imidazo[1,5-c]thiazole-5,7(6H,7aH)-dione, 6-butyl- (9CI) (CA INDEX NAME)



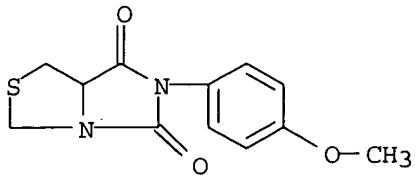
RN 105126-40-7 CAPLUS
CN 1H,3H-Imidazo[1,5-c]thiazole-5,7(6H,7aH)-dione, 6-cyclohexyl- (9CI) (CA INDEX NAME)



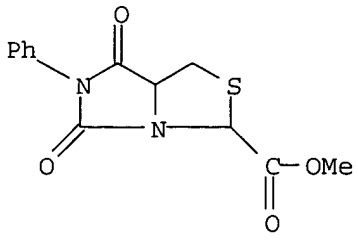
RN 105126-41-8 CAPLUS
CN 1H,3H-Imidazo[1,5-c]thiazole-5,7(6H,7aH)-dione, 6-(phenylmethyl)- (9CI) (CA INDEX NAME)



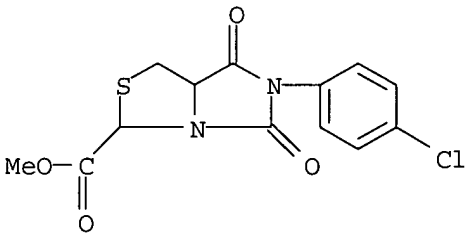
RN 105126-43-0 CAPLUS
CN 1H,3H-Imidazo[1,5-c]thiazole-5,7(6H,7aH)-dione, 6-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)



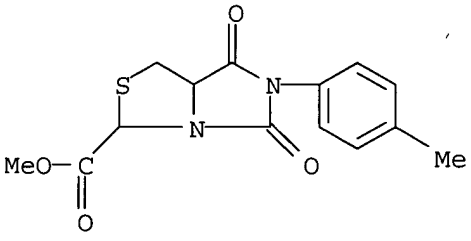
RN 155266-93-6 CAPLUS
CN 1H,3H-Imidazo[1,5-c]thiazole-3-carboxylic acid, tetrahydro-5,7-dioxo-6-phenyl-, methyl ester (9CI) (CA INDEX NAME)



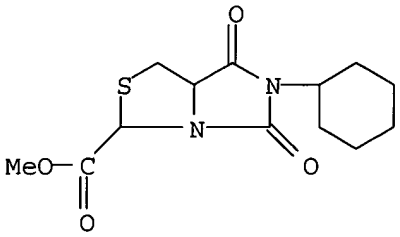
RN 158745-72-3 CAPLUS
CN 1H,3H-Imidazo[1,5-c]thiazole-3-carboxylic acid, 6-(4-chlorophenyl)tetrahydro-5,7-dioxo-, methyl ester (9CI) (CA INDEX NAME)



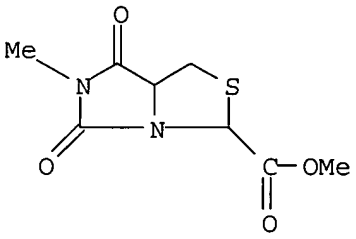
RN 158745-73-4 CAPLUS
CN 1H,3H-Imidazo[1,5-c]thiazole-3-carboxylic acid, tetrahydro-6-(4-methylphenyl)-5,7-dioxo-, methyl ester (9CI) (CA INDEX NAME)



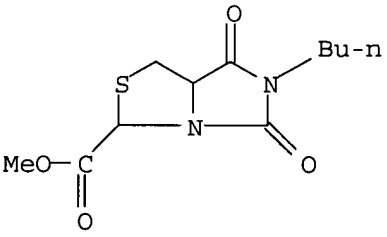
RN 158745-74-5 CAPLUS
CN 1H,3H-Imidazo[1,5-c]thiazole-3-carboxylic acid, 6-cyclohexyltetrahydro-5,7-dioxo-, methyl ester (9CI) (CA INDEX NAME)



RN 158745-75-6 CAPLUS
CN 1H,3H-Imidazo[1,5-c]thiazole-3-carboxylic acid, tetrahydro-6-methyl-5,7-dioxo-, methyl ester (9CI) (CA INDEX NAME)



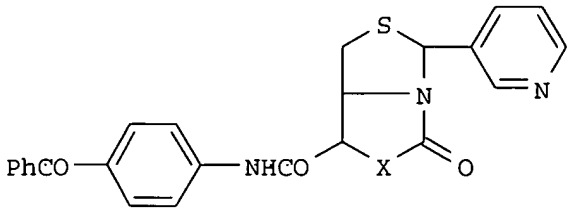
RN 158745-76-7 CAPLUS
CN 1H,3H-Imidazo[1,5-c]thiazole-3-carboxylic acid, 6-butyltetrahydro-5,7-dioxo-, methyl ester (9CI) (CA INDEX NAME)



L15 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:	1994:594925 CAPLUS
DOCUMENT NUMBER:	121:194925
TITLE:	Synthesis of bicyclic thiazolidine PAF antagonists
AUTHOR(S):	Davidsen, Steven K.; Summers, James B.; Conway, Richard G.; Rhein, David A.; Carter, George W.
CORPORATE SOURCE:	Immunosci. Res. Area, Abbott Lab., Abbott Park, IL, 60064, USA
SOURCE:	Bioorganic & Medicinal Chemistry Letters (1993), 3(12), 2729-32 CODEN: BMCLE8; ISSN: 0960-894X
DOCUMENT TYPE:	Journal
LANGUAGE:	English

GI



I

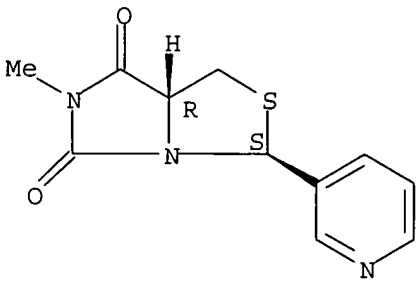
AB The 3-pyridyl substituted thiazolidine PAF antagonist is susceptible to thiazolidine ring fragmentation in vitro and in vivo. The search for a more stable compound prompted the synthesis of a series of bicyclic analogs. Three classes of bicyclic thiazolidines I (X = O, CH2, NCH3) were prepared using a common synthetic pathway which generated all the possible diastereomers. The most potent PAF antagonists were the oxygen-substituted analogs which possessed receptor binding affinities largely dependent on stereochem.

IT 155443-01-9P 155489-87-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and conversion to nitrile of)

RN 155443-01-9 CAPLUS

CN 1H,3H-Imidazo[1,5-c]thiazole-5,7(6H,7aH)-dione, 6-methyl-3-(3-pyridinyl)-, (3S-cis)- (9CI) (CA INDEX NAME)

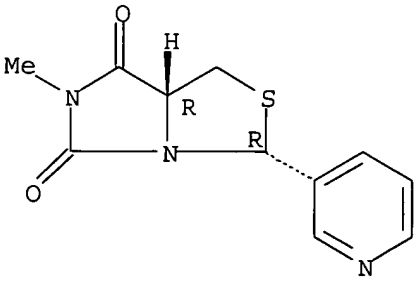
Absolute stereochemistry.



RN 155489-87-5 CAPLUS

CN 1H,3H-Imidazo[1,5-c]thiazole-5,7(6H,7aH)-dione, 6-methyl-3-(3-pyridinyl)-, (3R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L15 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1988:406327 CAPLUS

DOCUMENT NUMBER: 109:6327

TITLE: Optically active hydantoins, their preparation, and

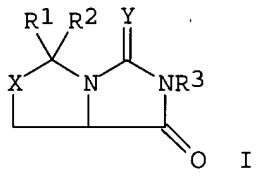
their use as intermediates for D-(+)-biotin

INVENTOR(S): Poetsch, Eike; Casutt, Michael
PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Fed. Rep. Ger.
SOURCE: Ger. Offen., 8 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3613246	A1	19871022	DE 1986-3613246	19860419
EP 243734	A2	19871104	EP 1987-105057	19870406
EP 243734	A3	19890208		
EP 243734	B1	19910717		
R: CH, DE, FR, GB, IT, LI				
JP 62249990	A2	19871030	JP 1987-93465	19870417
JP 2545225	B2	19961016		
US 5068341	A	19911126	US 1989-402289	19890905

PRIORITY APPLN. INFO.:
DE 1986-3613246 A 19860419
DE 1987-3703871 A 19870207
US 1987-39341 B1 19870417

GI

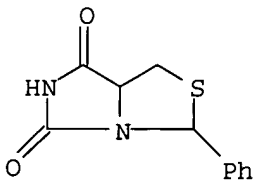


I

AB Optically active hydantoins I [X, Y independently = O, S; R1, R2 = H, alkyl with optional O or S interrupters, (un)substituted aryl or arylalkyl, cycloalkyl, alkenyl; R1R2 = alkylene with optional non-adjacent O or S interrupters; R3 = (un)substituted PhCH2, alkenyl, alkoxyalkyl, trialkylsilyl], useful as intermediates for the stereospecific preparation of D-(+)-biotin, were prepared L-Cysteine hydantoin was treated with BzH, then POCl3 to give (7aR)-3-phenyl-1H,3H-imidazo[1,5-c]thiazole-5,7-dione which was benzylated with PhCH2Br to give the 6-PhCH2 derivative

IT 113142-23-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and benzylation of)

RN 113142-23-7 CAPLUS
CN 1H,3H-Imidazo[1,5-c]thiazole-5,7(6H,7aH)-dione, 3-phenyl- (9CI) (CA INDEX NAME)



IT 112968-27-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as biotin intermediate)

RN 112968-27-1 CAPLUS
CN 1H,3H-Imidazo[1,5-c]thiazole-5,7(6H,7aH)-dione, 3-phenyl-6-(phenylmethyl)-
(9CI) (CA INDEX NAME)